

## Binary Trees with Factors [\(View\)](#)

Given an array of unique integers, `arr`, where each integer `arr[i]` is strictly greater than 1.

We make a binary tree using these integers, and each number may be used for any number of times. Each non-leaf node's value should be equal to the product of the values of its children.

Return *the number of binary trees we can make*. The answer may be too large so return the answer **modulo**  $10^9 + 7$ .

### Example 1:

**Input:** `arr = [2,4]`

**Output:** 3

**Explanation:** We can make these trees: [2], [4], [4, 2, 2]

### Example 2:

**Input:** `arr = [2,4,5,10]`

**Output:** 7

**Explanation:** We can make these trees: [2], [4], [5], [10], [4, 2, 2], [10, 2, 5], [10, 5, 2].

### Constraints:

- `1 <= arr.length <= 1000`
- `2 <= arr[i] <= 109`
- All the values of `arr` are **unique**.